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Award Number: DAMD17-03-1-0055

TITLE: A Randomized Trial of Musculoskeletal Pain Treatment in a  
Military Population

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REPORT DATE: February 2004

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command  
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;  
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20040903 129

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 074-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

<b>1. AGENCY USE ONLY</b> (Leave blank)		<b>2. REPORT DATE</b> February 2004	<b>3. REPORT TYPE AND DATES COVERED</b> Annual (15 Jan 2003 - 15 Jan 2004)	
<b>4. TITLE AND SUBTITLE</b>  A Randomized Trial of Musculoskeletal Pain Treatment in a Military Population			<b>5. FUNDING NUMBERS</b>  DAMD17-03-1-0055	
<b>6. AUTHOR(S)</b>  Robert J. Gatchel, Ph.D.				
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> The University of Texas Southwestern Medical Center Dallas, TX 75235-9044  E-Mail: robert.gatchel@utsouthwestern.edu			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b>				
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for Public Release; Distribution Unlimited			<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (Maximum 200 Words)</b>  Musculoskeletal system conditions are the leading cause of hospitalization and disability for the U.S. Armed Forces. The Department of Defense pays over \$1.5 billion per year to disabled service members, and musculoskeletal conditions account for 40-50% of this amount. This study investigates the effectiveness of an interdisciplinary functional restoration approach to the treatment of Active Duty military from all 4 branches suffering from chronic musculoskeletal pain (CMP). The primary aims of this Functional and Occupational Rehabilitation Treatment Program (FORT) including restoring physical function, retaining soldiers on active duty, and increasing the participants' abilities to effectively manage their pain. These outcomes, as well as socioeconomic variables, will be evaluated immediately following treatment, and at 6, 12, and 18 months follow-up.				
<b>14. SUBJECT TERMS</b> Musculoskeletal; disability; pain; functional restoration; treatment outcomes; cost-effectiveness; interdisciplinary			<b>15. NUMBER OF PAGES</b> 47	
			<b>16. PRICE CODE</b>	
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> Unlimited	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18  
298-102

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## INTRODUCTION

Musculoskeletal system conditions are the leading cause of hospitalization and disability for the U.S. Armed Forces. The Department of Defense pays over \$1.5 billion per year to disabled service members, and musculoskeletal conditions account for 40-50% of this amount. The medical discharge of one active duty U.S. military member in their twenties has been estimated to cost the government approximately \$250,000 in lifetime disability costs, excluding health-care costs. Despite continuous advances in military medicine, the rates of disability cases within the U.S. military have been increasing at an alarming rate, and nearly doubled between 1985 and 1994. Without changes in the current approach to the treatment of musculoskeletal conditions, these trends of increasing disability rates and tremendous associated costs will very likely continue. Fortunately, numerous studies with civilian populations have demonstrated the efficacy of an interdisciplinary chronic pain rehabilitation program (ICPRP) at facilitating return-to-work in workers' compensation patients with occupational musculoskeletal disorders and work disability. Return-to-work rates with this population administered ICPRP often approach 80-85% at one year, compared to no-treatment or standard care comparison groups that demonstrate only a roughly 40% return-to-work. The present research program compares the ICPRP to a standard anesthesiology treatment comparison group. The major hypothesis is that the ICPRP will significantly increase the likelihood of remaining on active duty and qualified for worldwide duty for military personnel suffering from musculoskeletal disorders, and positively impact other socioeconomic outcomes such as health-care utilization. This is a pre-to post-treatment evaluation design, with evaluations conducted immediately before and after treatment, as well as at 6-, 12-, and 18-month follow-up periods in order to determine differential outcomes on variables such as return to full duty status, work retention, and additional health-care utilization. The specific aims of the study are to evaluate the efficacy of ICPRP in reducing patient-reported pain symptoms, unnecessary health-care utilization, health-care costs, and number of military members on medical profile, disability, or separated from active duty. Additional aims include improving functioning, increasing the number of military members remaining fit for duty and worldwide qualified, and increasing military members' ability to pass their physical fitness test for their respective military service. In summary, this research project addresses the clear need for clinical research to develop evidence-based assessment and treatment approaches to decrease the enormous cost associated with chronic musculoskeletal conditions within the U.S. Armed Forces.

## BODY

In this first year of our grant project, we have accomplished all of the goals originally delineated in our **STATEMENT OF WORK** included in our initial application. It should be noted that, because of the Iraqi war during the first part of 2003, there was a major deployment of personnel from Wilford Hall Medical Center. This interfered somewhat with the early implementation of all aspects of initial activities of YEAR 01. Nevertheless, all tasks have been successfully completed. These are delineated below.

### Hire Grant Project Team Members

Classified advertisements were prepared for publication in the hiring of the registered nurse, the research assistant, and the physical therapist/occupational therapist for the study. Subsequently, all of the required grant project team members were hired. These include the following: the study coordinator (Don McGeary, Ph.D.); the physical therapist/occupational

therapist (Mysti Clifton, PT); the research nurse (Karen Leroy, R.N.); the project assistant (Joyce Dudley); and the biostatistician (initially Barbara Foster, who was subsequently replaced by Bill Frawley because of Dr. Foster's retirement). All of these individuals, as well as the rest of the research project team, have completed the required human subjects research training.

#### Finalize the Formal Treatment Protocols and Required Training

We have finalized the project staff training and integration across the various disciplines involved in the treatment protocols at The University of Texas Southwestern Medical Center at Dallas, Wilford Hall Medical Center, as well as Brooke Army Medical Center. This has resulted in structured protocols for the ICPRP and standard anesthesiology treatment groups that will now run smoothly and allow all patients to gain maximum benefit from all aspects of their treatment. Related to this, the following goals have been achieved:

- Comprehensive provider and patient manuals have been developed, tested, revised and finalized for both treatment programs.
- We have worked extensively to finalize all protocols and/or guidelines, as well as assembling these services into one integrated program for the following treatment components and personnel: (1) The clinical health psychologists at Wilford Hall Medical Center who will be administering the psychological treatment (e.g., individual treatment; stress management/biofeedback; psychoeducational classes). (2) The physical/occupational therapist who will coordinate the functional restoration of patients (e.g., functional capacity evaluation; individual and group exercise programs; didactics). (3) Physicians and nurses who will conduct the medical treatment and oversight of patients (e.g., medication tracking; intervention if injuries or pain worsens).
- We have organized a structured process to accommodate the anticipated flow of patients through the treatment programs.

#### Development of the Final Assessment-Outcome Measures Database

We have finalized all of the channels for data collection and data flow that will maximize our ability to gather all data in the most reliable, valid and efficient method possible. The biostatistician at The University of Texas Southwestern Medical Center at Dallas has accomplished this, as well as building in quality assurance checks to monitor the integrity of all data collected. We now have a fully functioning data collection system which includes all of the variables proposed in the initial application. Appendix A includes a summary of all the measures in our database.

#### Final Institutional Review Board Approvals

The final IRB approvals from The University of Texas Southwestern Medical Center at Dallas, Wilford Hall Medical Center, and Brooke Army Medical Center have been accomplished. In response to the Wilford Hall Medical Center's IRB review on November 26, 2002, the ICD was updated to indicate that, if active duty participants are no longer on active duty during the follow-up period, they consent to be contacted at their civilian address. In addition, amendments to the human protocol and ICD were completed to include a HIPAA authorization form generated that combined the forms used at Wilford Hall Medical Center and The University of Texas Southwestern Medical Center at Dallas. Appendix B includes the most

recently approved ICD. We are currently awaiting final IRB approval from Ft. Detrick prior to the formal enrollment of participants.

#### Finalize Recruitment Strategy and Begin Recruiting Subjects for the Project

We have also finalized the recruitment strategy and standard procedures to follow for enrollment of patients into the study. Recruitment of patients have been initiated. Anticipated start date for enrollment of patients into the study is 1 March 04.

#### Monitoring Any New Information Available Regarding the Major Goals of this Research Project

We have, and will continue to review, all recent literature concerning our study hypotheses. Our recent review of the literature has indicated that there still remains a paucity of studies evaluating the ICPRP as a treatment for chronic pain in a military population. Specifically, a literature review using MEDLINE, and PsychINFO has revealed no available published reports or analyzed control trial studies of ICPRP as a treatment for chronic pain in the military. Reviews of recent published studies continue to support the cost-and treatment-effectiveness of ICPRP as a treatment for civilians with both chronic and acute musculoskeletal pain.

### **KEY RESEARCH ACCOMPLISHMENTS**

- Recruitment and training of all required project team members.
- Testing, revising, and finalizing all of the treatment protocols for the project.
- Development of the final assessment-outcome measures database that is being used in this project.
- Began subject recruitment.

### **REPORTABLE OUTCOMES**

Because of the longitudinal nature of this investigation, insufficient data have yet been gathered to render any preliminary results or conclusions at this point in time, although current trends of the data are promising, and suggestive of positive outcomes.

### **CONCLUSIONS**

Because we are only in the first year of this project, which is longitudinal in nature, we have come to no conclusions in our research. We have, however, met all of our goals for YEAR 01 of the project, in spite of the fact that there was some initial delay because of the Iraqi conflict at the beginning of the grant period. We are confident that the resulting data from this project will be vital in establishing a significantly efficacious and cost-effective way to treat chronic musculoskeletal pain among active duty military, a problem currently costing the Department of Defense billions of dollars each year in direct and indirect costs. Further possible benefits include decreased health-care utilization and improved quality of life for active duty soldiers suffering from chronic musculoskeletal pain disability.

### **REFERENCES**

No new references included in this report.

**APPENDICES**

**APPENDIX A:** Summary of Outcome Measures in our Database

**APPENDIX B:** Most Recently Approved ICD

## **APPENDIX A**

### **SUMMARY OF OUTCOME MEASURES IN OUR DATABASE**



## Variable Coding Sheet

1	Last Name		
2	First Name		
3	FMP/SSN	3a. ____ / 3b. ____ -- ____ -- ____	
4	Group	3b. Patient Group: ICPRP = 1    Control = 2 _____ CODE: _____	
5	Follow-up Projected	Projected Follow-up date for PRE-I / POST-1 / 6MO / 12MO / 18MO  ____ / ____ / ____ MM        DD        YY	
6	Follow-up Actual	Follow-up date for PRE-I / POST-I / 6MO / 12MO / 18MO  ____ / ____ / ____ MM        DD        YY	
7	Date of First Appointments	4a. Date First Seen By Anesth  ____ / ____ / ____ MM        DD        YY	4b. Date Finished Anesth Tx  ____ / ____ / ____ MM        DD        YY
8	Date of Injury - LOD	5a. Date pain began  ____ / ____ / ____ MM        DD        YY	5b. Date Of ICPRP Intake  ____ / ____ / ____ MM        DD        YY
9	Age in years	____ N/A=-9 Date of Birth:  ____ / ____ / ____ MM        DD        YY	6b Duration of Symptoms in months for the chief complaint  N/A= -9        ____ _____
10	Service of Patient (or sponsor)	US Army = 1 US Air Force =2 US Navy = 3	US Marine =4 US Coast Guard =5 N/A=-9  CODE: _____
12	Patient's beneficiary	List of Values:	

	classification:	Active Duty.....1 Dependent of Active Duty.....2 Guard/Reserve.....3 Dependent of Guard/Reserve.....4 Retiree.....5 Dependent of Retiree.....6 Other.....7 Unknown .....8 N/A.....-9
13	Gender	Male.....1 Female.....2 N/A.....-9
14	Race Ethnic Code: Definition: The code which represents a non scientific division of the population based on assumed primordial biological properties combined with a segment population that possesses common characteristics and/or cultural heritage.	List of Values:  American Indian or Alaskan Native.....1  Asian or Pacific Islander.....2  Black (not Hispanic).....3  White (not Hispanic).....4  Hispanic.....5  Other.....6  Unknown .....7
15	Marital Status Code: Definition: The code that represents the	List of Values:  Single, not married.....1 Married.....2

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		Bachelors = 06 Graduate = 07 N/A = -9
23	Referral Source (clinic)	Pain = 01      Neurology = 06      Hemat/Onc=11 Sleep = 02      Neuropsych = 07      Cardiology=12 Dental = 03      Ment Health = 08      Rheum =13 Prim Care=04      Internal Med = 09      Other =14 Pulmonary=05      Orthopedics = 10      N/A = -9 <div style="text-align: right;">CODE: _____</div>
24	Other clinic	IF Above is OTHER, specify clinic: _____
25	Current Injury	Current pain due to injury where? Lumbar = 01      Multiple Spinal = 05 Thoracic = 02      Upper Extremity = 06 Cervical = 03      Lower Extremity = 07 Other = 08
26	Patient Described	How patient describes site of injury: _____
27	Previous Injury	Previous injury/pain resulting in inability to work? YES = 01    NO = 02    N/A = -9 If YES, where? Lumbar = 01      Multiple Spinal = 05 Thoracic = 02      Upper Extremity = 06 Cervical = 03      Lower Extremity = 07 Other = 08      CODE: _____
28	New Injury	Sustained new injury/pain resulting in inability to work? YES = 01    NO = 02    N/A = -9 If YES, new injury to same site? YES = 01    NO = 02    N/A = -9 If NOT SAME SITE – Site of new injury: Lumbar = 01      Multiple Spinal = 05

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		If YES, how many procedures? _____
37	Procedure 1	<p>If 16-6 is YES, which procedure(s)?</p> <p>01 = fusion</p> <p>02 = morphine pump</p> <p>03 = spinal cord stimulator</p> <p>04 = injection(s)</p> <p>05 = TENS unit</p> <p>06 = Other _____</p> <p>-9 = N/A</p> <p>CODE: ____</p>
38	Procedure 2	<p>If 16-6 is YES, which procedure(s)?</p> <p>01 = fusion</p> <p>02 = morphine pump</p> <p>03 = spinal cord stimulator</p> <p>04 = injection(s)</p> <p>05 = TENS unit</p> <p>06 = Other _____</p> <p>-9 = N/A</p> <p>CODE: ____</p>
39	Procedure 3	<p>If 16-6 is YES, which procedure(s)?</p> <p>01 = fusion</p> <p>02 = morphine pump</p> <p>03 = spinal cord stimulator</p> <p>04 = injection(s)</p> <p>05 = TENS unit</p> <p>06 = Other _____</p> <p>-9 = N/A</p> <p>CODE: ____</p>
40	Other Health Problems	<p>Any other problems with your health not indicated above?</p> <p>YES = 01   NO = 02   N/A = -9</p> <p>CODE: ____</p>
41	Sleep	<p>17a. Average self-reported hours of sleep a night _____ N/A = -9</p> <p><u>Symptoms checked as occurring 3 or more days a week:</u></p> <p>17b. Difficulty falling asleep.....1</p> <p>17c. Difficulty staying asleep.....2</p>



45	Current (past 30 days) Tobacco Use Status	<p>20a. Not current tobacco user = 01          Prior tobacco user = 02          Current tobacco user (any daily use) = 03          N/A = -9</p> <p>20b. <u>If yes to current tobacco use:</u>          Type of tobacco          Cigarettes = 01          Pipe/Cigar = 02          Smokeless = 03</p> <p>20c. Duration of Tobacco Use in Years: _____</p>
46	Current Caffeine Use	<p>21a. Yes =01 No =02 N/A = -9</p> <p>21b. <u>If Yes:</u>          Average number of drinks per week: _____</p>
47	BMI	<p>22-1a. Height (inches) _____</p> <p>22-1b. Weight (pounds) _____</p>
48	Diet	<p>22-2. Currently on a diet trying to lose wt?          Yes = 01 No = 02 N/A = -9</p>
49	Diet – 2	<p>Do you eat too much/too little?          YES = 1 NO = 2 N/A = -9</p>
50	Exercise on Regular Basis	<p>Yes = 1 No = 2 N/A = -9</p>
51	History of Mental Health Treatment (any tx the pt indicated as MH including Chaplain, etc...)	<p>Yes = 1 No = 2 N/A = -9</p>
52	History of Physical,	



	Sexual, or Emotional abuse	Yes = 1 No = 2 N/A = -9
53	Satisfaction with Social Support from Family & Friends	Very Unsatisfied.....1 Unsatisfied.....2 Satisfied.....3 Very Satisfied.....4 N/A.....-9
54	Hours Worked	How many hours a week, on average, do you work? _____
55	Job History	26a. Disability/Workers Comp: Yes = 1 No = 2 N/A = -9  <u>26b. Work Status:</u> Full-time outside the home.....1 Full-time in the home.....2 Part-time.....3 Retired.....4 N/A.....-9  <u>26c. Job Title:</u> What is your current job title? _____  <u>26c. If Working, Satisfaction with Current Occupation:</u> Very Unsatisfied.....1 Unsatisfied.....2 Satisfied.....3 Very Satisfied.....4 N/A.....-9
56	Return to Work	<u>Present Vocational Status:</u> 01 RTW, Full Time, Same Job Type 02 RTW, Full Time, New Job Type 03 RTW, Light/Part Duty, Same Job Type

		04 RTW, Light/Part Duty, New Job Type 05 RTW, But Not Pres Work BC of New Injury 06 RTW, But Not Pres Work BC Original Injury 07 Self-Employed 08 Vocational Training or School/Retraining 09 Never Returned to Work Because of Injury 10 Denies Work BC of Employment Factors Exc 11 Denies Work, But Engag in Incom Prod Act 12 Denies Work, Participates Non-Income Prod Activities 13 Was Not Working Before Injury
57	RTW Date	Date pt returned to work:  MM ____ / DD ____ / YY ____
58	Quality of Life	Satisfaction with Quality of Life: Very Unsatisfied.....1 Unsatisfied.....2 Satisfied.....3 Very Satisfied.....4 N/A.....-9
59	Spirituality	28a. Importance from 0-10 with 10 = very important: ____ N/A=-9  28b. Current difficulties affecting spirituality: Yes = 1 No= 2
60	Legal Issues	Current litigation pending concerning pt's condition:  Yes = 1 No= 2 N/A=-9
61	Disciplinary Action	Any history of disciplinary action (e.g., LOC, LOR, LOA)? YES = 01 NO = 02 N/A = -9
62	Goals	Top Three Goals from Goal sheet (1-51) 1: ____ 2: ____ 3: ____ N/A=-9
63	Primary Axis I Diagnosis	296.2 MD, sing ep = 01 316 Psych fac/Med Cond= 06 296.3 MD, recurrent = 02 V71.09 No diagnosis = 07



69	Secondary Axis III	Headache=01    Fibromyalgia = 08    Myofac. Pain = 15 RSD/CRPS=02    HTN= 09    Other = 16 IBS = 03    Other chron pain=10    N/A=-9 TMD = 04    Cardiac = 11 COPD = 05    Cancer =12 Arthritis = 06    Obesity = 13 Chron Back= 07    Insomnia = 14    CODE: _____
70	Other Axis III	IF above is OTHER, specify diagnosis:  
71	Site Treated	WHMC = 01 BAMC = 02  CODE: _____

### JOB REQUIREMENTS EVALUATION

72	Standing	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
73	Walking	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
74	Sitting	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
75	Squatting	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
76	Kneeling	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
77	Stooping/Bending	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
78	Crawling	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
79	Driving	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
80	Repetitive Handwork	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
81	Reaching	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
82	Lifting	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
83	Carrying	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
84	Pushing/Pulling	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____
85	Climbing	Indicate the amount of time spent at your job doing this activity: NONE = 01   OCCASIONAL = 02   FREQUENT = 03 CONSTANT = 04 CODE: _____

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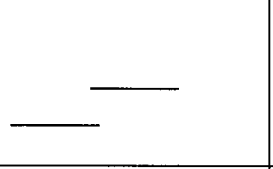
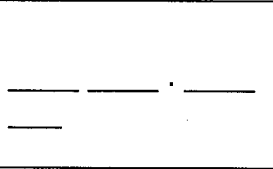
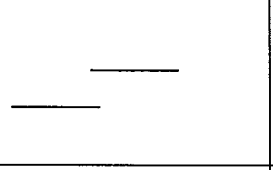
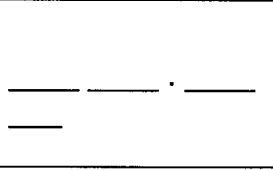
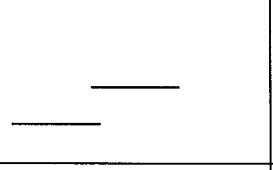
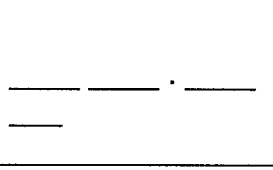
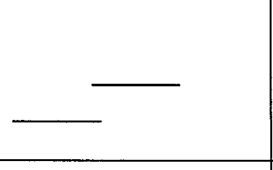
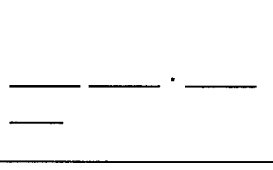
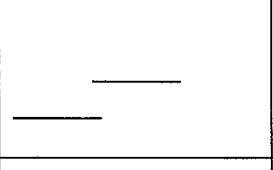
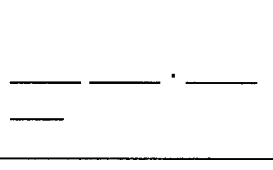
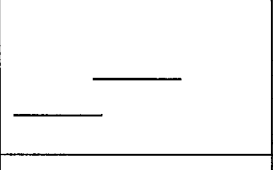
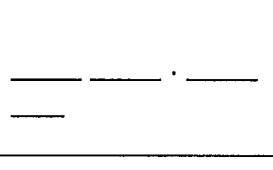
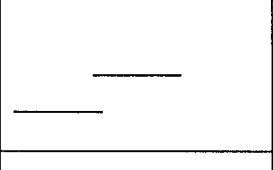
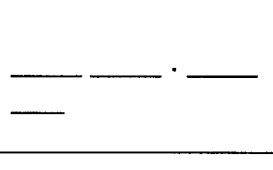
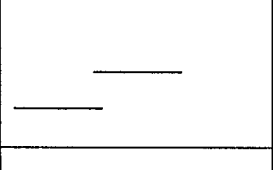
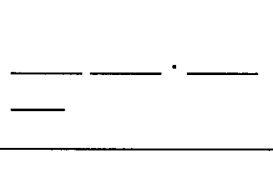
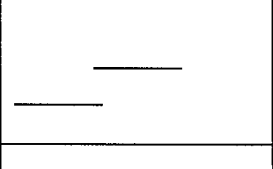
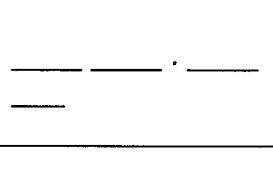
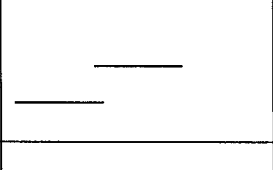
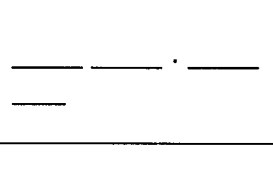
*Reminder: Any missing data (unavailable, ambiguous, more than answer circled, etc..) = N/A*

86	BDI – Front	_____	10 2	MPIPS	_____ . _____
87	BDI - Back	_____	10 3	MPII	_____ . _____
88	BDI - Total	_____	10 4	MPILC	_____ . _____
89	BDI – Item 9	_____	10 5	MPIAD	_____ . _____
90	SF36 – PF	_____	10 6	MPIS	_____ . _____
91	SF36 – RP	_____	10 7	MPIPR	_____ . _____
92	SF36 – BP	_____	10 8	MPISR	_____ . _____
93	SF36 – GH	_____	10 9	MPIDR	_____ . _____
94	SF36 – VT	_____	11 0	MPIHC	_____ . _____
95	SF36 – SF	_____	11 1	MPIOW	_____ . _____

96	SF36 – RE	_____	11 2	MPIAAH	_____ . _____
97	SF36 – MH	_____	11 3	MPISA	_____ . _____
98	SF36 – PCS	_____	11 4	MPIGA	_____ . _____
99	SF36 – MCS	_____	11 5	MPI Profile	Dysfunctional..... .1
10 0	SF36 – PCS %	_____			Interpers/Distr..... .2  Adaptive Cop.....3 Anomolous..... ...4  Hybrid..... 5  Unanalyzable..... .6
10 1	SF36 – MCS %	_____	11 6	PCI	High: _____ Low: _____  AVG: _____

*Reminder: Any missing data (unavailable, ambiguous, more than answer circled, etc..) = N/A*

11 7	SF36q1	_____	13 3	SF36q17	_____ . _____
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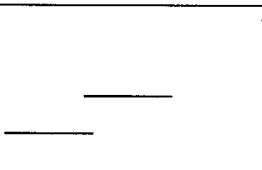
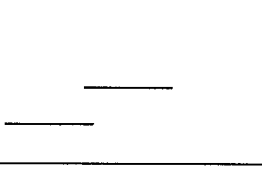
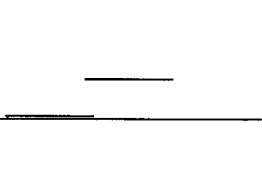
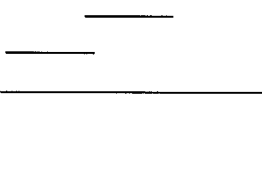
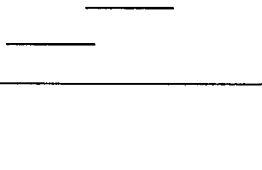
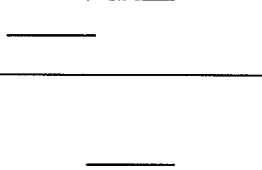
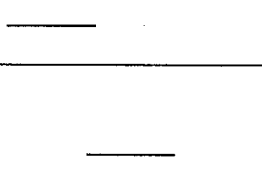
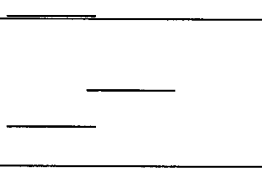
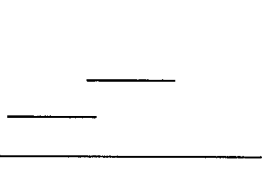

11 8	SF36q2		13 4	SF36q18	
11 9	SF36q3		13 5	SF36q19	
12 0	SF36q4		13 6	SF36q20	
12 1	SF36q5		13 7	SF36q21	
12 2	SF36q6		13 8	SF36q22	
12 3	SF36q7		13 9	SF36q23	
12 4	SF36q8		14 0	SF36q24	
12 5	SF36q9		14 1	SF36q25	
12 6	SF36q10		14 2	SF36q26	
12 7	SF36q11		14 3	SF36q27	
12	SF36q12		14	SF36q28	



8		_____	4		_____
12 9	SF36q13	_____	14 5	SF36q29	_____
13 0	SF36q14	_____	14 6	SF36q30	_____
13 1	SF36q15	_____	14 7	SF36q31	_____
13 2	SF36q16	_____	14 8	SF36q32	_____

14 9	SF36q33	_____	16 4	THQgc	_____
15 0	SF36q34	_____	16 5	FABQpa	_____
15 1	SF36q35	_____	16 6	FABQw	_____
15 2	SF36q36	_____	16 7		_____
15 3	MVAS	_____	16 8	PainVAS	_____
15 4	MVAScat	0 = None (MVAS = 0) 1 = Mild (1-40) 2 = Moderate (41-70) 3 = Severe (71-100) 4 = Very Severe (101-130) 5 = Extreme (131-150) -9 = no MVAS score	16 9	POMStot	_____
			17 0	POMSanx	_____
15 5	THQwp	_____	17 1	POMSdep	_____
15 6	THQmed	_____	17 2	POMSang	_____
15	THQpsy	_____	17	POMSvg	_____

7		_____	3		_____ . _____
15 8	THQpt	_____	17 4	POMSfat	_____ . _____
15 9	THQdr	_____	17 5	POMScon	_____ . _____
16 0	THQip	_____	17 6		_____ . _____
16 1	THQdiag	_____	17 7		_____ . _____
16 2	THQwat	_____	17 8	ORQtot	_____ . _____
16 3	THQpe	_____	17 9	ORQdep	_____ . _____

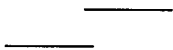



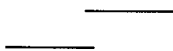
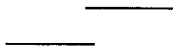
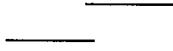
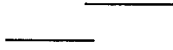

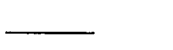

18 0	ORQpi		
18 1	ORQdwr		
18 2	ORQpwh		
18 3	ORQssw		
18 4	ORQwsl		
18 5	ORQwks		
18 6	ORQfss		
18 7	ORQppwr		
18 8	PCLM		
18 9	OSW		
19 0	ISI		

19 1	CEQ		
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### DSM-IV AXIS I DIAGNOSIS

19 2	AxisId1	1 = Major Dep – Single Episode (296.2) 2 = Major Dep – Recurrent (296.3) 3 = Pain Disorder (307.xx) 4 = Primary Insomnia (307.42) 5 = Adjustment Disorder (309.xx) 6 = Psych Fac to Med Cond (316) 7 = Gen Anx Dis (300.02) 8 = PTSD (309.81) 9 = Panic Disorder (300.2x) 10 = Deferred (799.9) 11 = No Diagnosis (V71.09) 12 = Other Diagnosis -9 = N/A
19 3	AxisId2	1 = Major Dep – Single Episode (296.2) 2 = Major Dep – Recurrent (296.3) 3 = Pain Disorder (307.xx) 4 = Primary Insomnia (307.42) 5 = Adjustment Disorder (309.xx) 6 = Psych Fac to Med Cond (316) 7 = Gen Anx Dis (300.02) 8 = PTSD (309.81) 9 = Panic Disorder (300.2x) 10 = Deferred (799.9) 11 = No Diagnosis (V71.09) 12 = Other Diagnosis -9 = N/A
19 4	AxisId3	1 = Major Dep – Single Episode (296.2) 2 = Major Dep – Recurrent (296.3) 3 = Pain Disorder (307.xx) 4 = Primary Insomnia (307.42) 5 = Adjustment Disorder (309.xx) 6 = Psych Fac to Med Cond (316) 7 = Gen Anx Dis (300.02) 8 = PTSD (309.81) 9 = Panic Disorder (300.2x) 10 = Deferred (799.9) 11 = No Diagnosis (V71.09) 12 = Other Diagnosis -9 = N/A

# FCE DATA

19 5	Tflex		
19 6	Text		
19 7	PILEwt-waist		
19 8	PILEhr-waist		
19 9	PILEwt-shoulder		
20 0	PILEhr-shoulder		
20 1	Aerovo2		
20 2	Aerotime		
20 3	Aerohr		
20 4	Aeroefft		
20 5	GripstrL		

20 6	GripstrR		
20 7	DomHand	<i>Circle one:</i> <b>Left</b> <b>Right</b>	



### Past Treatment Received

Reminder: Any missing data (unavailable, ambiguous, etc.) = N/A

20 8	Individual	No.....0 Yes.....1 Intake Only .....2  Number of Sessions: _____
20 9	Biofeedback	No.....0 Yes.....1  Number of Sessions: _____
21 0	Interdisciplinary Chronic Pain Management Program      or  Interdisciplinary Chronic Pain Rehabilitation Program  Pain Group	No.....0 Yes.....1  Number of Sessions: _____
21 1	4-session Pain Group or similar	No.....0 Yes.....1  Number of Sessions: _____
21 2	TMD Group	No.....0 Yes.....1  Number of Sessions: _____
21 3	COPD (Pulmonary Rehab Group)	No.....0 Yes.....1  Number of Sessions: _____
21 4	LEARN	No.....0

		Yes.....1  Number of Sessions:_____
21 5	Behavioral Cardiac Rehab Program	No.....0 Yes.....1  Number of Sessions:_____
21 6	Tobacco Cessation Program	No.....0 Yes.....1  Number of Sessions:_____
21 7	Relaxation Group	No.....0 Yes.....1  Number of Sessions:_____
21 8	Insomnia Group	No.....0 Yes.....1  Number of Sessions:_____
21 9	Previous Passive Treatments?	Undergone any previous surgical/medical procedures for your pain since pain began?  YES = 01   NO = 02   N/A = -9  If YES, how many procedures? _____
22 0	Procedure 1	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit

		06 = Other _____ -9 = N/A CODE: ____
22 1	Procedure 2	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit 06 = Other _____ -9 = N/A CODE: ____
22 2	Procedure 3	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit 06 = Other _____ -9 = N/A CODE: ____

### Post-FORT Treatment(s) Received

*Reminder: Any missing data (unavailable, ambiguous, etc.) = N/A*

22 3	Individual	No.....0 Yes.....1 Intake Only .....2  Number of Sessions: _____
22 4	Biofeedback	No.....0 Yes.....1 Number of Sessions: _____
22 5	Interdisciplinary Chronic Pain Management Program     or  Interdisciplinary Chronic Pain Rehabilitation Program  Pain Group	No.....0 Yes.....1  Number of Sessions: _____
22 6	4-session Pain Group or similar	No.....0 Yes.....1  Number of Sessions: _____
22 7	TMD Group	No.....0 Yes.....1  Number of Sessions: _____
22 8	COPD (Pulmonary Rehab Group)	No.....0 Yes.....1  Number of Sessions: _____
22 9	LEARN	No.....0 Yes.....1

		Number of Sessions:_____
23 0	Behavioral Cardiac Rehab Program	No.....0 Yes.....1  Number of Sessions:_____
23 1	Tobacco Cessation Program	No.....0 Yes.....1  Number of Sessions:_____
23 2	Relaxation Group	No.....0 Yes.....1  Number of Sessions:_____
23 3	Insomnia Group	No.....0 Yes.....1  Number of Sessions:_____
23 4	Passive Treatments?	Undergone any previous surgical/medical procedures for your pain since completing the FORT program?  YES = 01    NO = 02    N/A = -9  If YES, how many procedures? _____
23 5	Procedure 1	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit

		06 = Other _____ -9 = N/A CODE: ____
23 6	Procedure 2	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit 06 = Other _____ -9 = N/A CODE: ____
23 7	Procedure 3	If 16-6 is YES, which procedure(s)? 01 = fusion 02 = morphine pump 03 = spinal cord stimulator 04 = injection(s) 05 = TENS unit 06 = Other _____ -9 = N/A CODE: ____

**APPENDIX B**  
**MOST RECENTLY APPROVED ICD**

BROOKE ARMY MEDICAL CENTER/WILFORD HALL MEDICAL CENTER  
INFORMED CONSENT DOCUMENT  
(ICD Template Version 4. Feb 02)

**A Randomized Trial of Musculoskeletal Pain Treatment in a Military Population**

**PRINCIPAL INVESTIGATOR** – Lt Col Alan L. Peterson

If you choose not to participate in this research study, your decision will not affect your eligibility for care or any other benefits to which you are entitled.

**DESCRIPTION/PURPOSE OF RESEARCH**

You are being asked to consider participation in this research study. The purpose of this study is to evaluate the effectiveness of two different treatments designed to decrease chronic pain, increase functioning, and retain military members on active duty.

This study is being conducted at Wilford Hall Medical Center in San Antonio, Texas and Brooke Army Medical Center, San Antonio, Texas. The study will enroll approximately 90 active duty military personnel with musculoskeletal pain over a period of 18 months. The overall duration of the study will be about 4 years, but the time requirement for individual participants will be about four weeks with follow-up evaluations occurring at 6 months, 12 months, and 18 months.

The two approaches to pain management that will be evaluated in this study are as follows:

**Group A, Standard Anesthesia Pain Clinic Medical Care:** Participants in this group will be thoroughly evaluated by physicians trained in medical pain management techniques. Appropriate medical recommendations will be made and may include any of the following: pain medications, antidepressant medications, and nerve block and steroid injections. This treatment will include about 6 patient visits over a three-week period.

**Group B, Standard Anesthesia Pain Clinic Medical Care AND Interdisciplinary Chronic Pain Rehabilitation Program:** This group will receive all of the treatment as described in

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Group A above, as well as an interdisciplinary functional restoration treatment program, which consists of three major components. Each participant will be evaluated and treated by physical therapy, occupational therapy, and clinical health psychology in coordination with a supervising nurse-physician team. This group will include 3 weeks of full-time treatment including supervised physical exercise and learning pain management skills.

**RANDOMIZATION OF STUDY PARTICIPANTS:** As a participant, you will be randomly assigned to one of these two groups. Randomization is a process much like flipping a coin and means you will have the same chance of being assigned to either of these two groups.

**PROCEDURES:** As a participant, you will undergo the following procedures:

Meeting One: The first meeting with Clinical Health Psychology service will involve a full assessment of your pain condition. You will then receive an overview of the study, complete the informed consent document, and be asked to complete several questionnaires about your functioning in many areas (estimated time 1 1/2 hours).

During the first session you will also be randomly assigned to one of the two groups. If you are assigned to Group A or B, you will be treated at the Anesthesia Pain Clinic at Wilford Hall or Brooke Army Medical Center as directed by your physicians. Should it be necessary for you to have a standard anesthesia pain clinic treatment requiring additional informed consent, a separate consent form will be completed at the time of the procedure. If you are selected for Group B, you will also be scheduled for inclusion in the Interdisciplinary Chronic Pain Rehabilitation Program. This three-week program will be offered at Wilford Hall Medical Center once each month.

Phone Contacts and Mailings: Participants in both Groups A and B will be contacted for follow-up information 3 weeks after the initiation of treatment and then at the 6 month, 12 month and 18 month point. Each of these follow-up contacts will involve gathering the same information on functioning as previously assessed. I understand that if I am no longer on active duty in the U.S. military at the time of one of my follow-up assessments, I will be contacted at my civilian address to request completion of the outcome questionnaires.

Should it be necessary for you to have a procedure requiring additional informed consent, a separate consent form will be completed at the time of the procedure.

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**RISKS OR DISCOMFORTS:**

There is minimal psychological and/or physical risk from the early interventions to be used in this study. In past research, none of the subjects had any problems. You could experience stress from participating in this kind of research. Knowing that researchers have personal information about you may trouble you. There is a possibility that your low back pain may worsen if you are assigned to the early intervention; however, this is not anticipated.

For those in Group A and B, the risks and discomforts of participating are the same as those that would be expected when under the care of the Anesthesia Pain Clinic for any other patient. An additional informed consent for a standard anesthesia pain clinic treatment may be obtained at the time of treatment. These treatments include the use of medications and injections, and the potential adverse effects include infection, bleeding, nerve damage, allergic reactions and either no change or a worsening of your pain.

For those in Group B, there are some risks, which involve engaging in a functional restoration program although these are expected to be minimized since you will be following the recommendations of an interdisciplinary staff of healthcare providers (e.g., physician, nurse, psychologist, physical therapist, and occupational therapist). It is also possible that your pain could become somewhat worse during the course of treatment. There may also be unforeseen risks associated with this study. A previously unknown problem could result from your participation in this research. It is not possible to estimate the chances of such problems or how serious problems could be. Consequently, we ask that you inform the study doctor or any of the Investigators listed on this form of any problems that arise during this study, and also inform your physician. Finally, if suicidality is ever indicated, your commander will be notified and appropriate action will be taken.

**BENEFITS:**

While there is no guarantee you will benefit from participating in this study, it is intended to reduce your pain, increase your functioning, and retain your active duty status. The treatments are believed to be beneficial, and how well they work is the focus on this study. The investigators have designed this study to learn if there is a difference and how they can better treat active duty members who often times are concerned about their ability to remain in the military until they decide to retire.

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There will also be a scientific benefit if this study can tell us which treatment for musculoskeletal pain is better.

**PAYMENT (COMPENSATION):**

You will not receive any compensation (payment) for participating in this study.

**ALTERNATIVES TO PARTICIPATION:** Alternatives may be available to you, including other pain management programs or individual consultations with Physical Therapy, Occupational Therapy, Mental Health, or Clinical Health Psychology available through your medical treatment facility. Other alternatives would be to seek follow-up care with your primary care manager or to participate in treatment at the Anesthesia Pain Clinic but to decline participation in the data collection or to decline any treatment at all.

**CONFIDENTIALITY OF RECORDS OF STUDY PARTICIPATION:**

Records of your participation in this study may only be disclosed in accordance with federal law, including the Federal Privacy Act, 5 U.S.C. 552a, and its implementing regulations. DD Form 2005, Privacy Act Statement- Military Health Records, contains the Privacy Act Statement for the records. By signing this consent document, you give your permission for information gained from your participation in this study to be published in medical literature, discussed for educational purposes, and used generally to further medical science. You will not be personally identified; all information will be presented as anonymous data.

Your records may be reviewed by the U.S. Food & Drug Administration (FDA), other government agencies, the BAMC/WHMC Institutional Review Boards, and by research staff. Complete confidentiality cannot be promised, particularly for military personnel, because information regarding your health may be required to be reported to appropriate medical or command authorities.

**ENTITLEMENT TO CARE:**

In the event of injury resulting from this study, the extent of medical care provided is limited and will be within the scope authorized for Department of Defense (DoD) health care beneficiaries.

Your entitlement to medical and dental care and/or compensation in the event of injury is governed by federal laws and regulations, and if you have questions about your rights as a research subject or

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if you believe you have received a research-related injury, you may contact the Wilford Hall Clinical Research Squadron Commander, (210) 292-7069 or Wilford Hall Medical Center Risk Manager, 210-292-6004.

Brooke Army Medical Center Protocol Coordinators, 210-916-2598 or BAMC Judge Advocate, 210-916-2031.

Preparation in this study does not alter your ongoing medical benefits as a military beneficiary, and you will continue to receive any needed medical treatment should you experience illness or injury as a result of this study. In the event of injury resulting from the investigational procedures, the extent of medical care provided is limited and will be within the scope authorized for DoD health care beneficiaries.

**BLOOD & TISSUE SAMPLES:** "No blood or tissue samples will be taken as part of this study."

**STATEMENT OF GOOD FAITH:** The investigator cannot guarantee or promise that you will receive benefits from this study; however, the investigator will keep you informed of any serious complications, which may result from your participation in this study.

**VOLUNTARY PARTICIPATION:**

The decision to participate in this study is completely voluntary on your part. No one has coerced or intimidated you into participating in this project. You are participating because you want to. Lt Col (Dr) Alan Peterson, (Wilford Hall Medical Center, DSN 554-5968, Commercial (210) 292-5968), Dr. Robert Gatchel, (University of Texas Southwest Medical Center, Dallas, (214) 648-5277), or one of their associates has adequately answered any and all questions you have about this study, your participation, and the procedures involved. Dr. Peterson, Dr. Gatchel, or a member of the Clinical Health Psychology staff at Wilford Hall Medical Center ((210) 292-5968) will be available to answer any questions concerning procedures throughout this study. If significant new findings develop during the course of this study that may relate to your decision to continue participation, you will be informed.

You may withdraw this consent at any time and discontinue further participation in this study without affecting your eligibility for care or any other benefits to which you are entitled. Should you choose to

withdraw, you must inform one of the investigators. Your condition will continue to be treated in accordance with acceptable standards of medical treatment.

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The investigator of this study may terminate your participation in this study at any time if he/she feels this to be in your best interest. Your consent to participate in this study is given on a voluntary basis. All oral and written information and discussions about this study have been in English, a language in which you are fluent.

**CONTACT INFORMATION:**

**Principal Investigator (PI)**

The principal investigator or a member of Clinical Health Psychology staff will be available to answer any questions concerning procedures throughout this study.

Principal Investigator: Lt Col Alan L. Peterson

Phone: (210) 292-5968

**Institutional Review Board (IRB)**

The WHMC Institutional Review Board (IRB), the hospital committee responsible for safeguarding your rights as a research subject, has assigned a member of the IRB, who is not part of the study team, to serve as an outside monitor for this study (this person is the Medical Monitor). If you have any questions about your rights as a research subject or any other concerns that cannot be addressed by the PI, you can contact the medical monitor, Joseph Schmelz, PhD, RN at (210) 292-5687. Or mail to: 59th Clinical Research Squadron/MSRP, 1255 Wilford Hall Loop, Lackland Air Force Base, Texas 78236.

In addition, if you have any comments, questions, concerns or complaints, you may also contact the Chairperson of the IRB, at (210) 292-7558. Or mail to: 59th Medical Wing/CM, 2200 Bergquist Drive, Lackland Air Force Base, Texas 78236.

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A copy of this form has been given to you.

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A Randomized Trial of Musculoskeletal Pain Treatment in a Military Population

\_\_\_\_\_  
VOLUNTEER'S SIGNATURE

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
VOLUNTEER'S SSN

\_\_\_\_\_  
DATE

\_\_\_\_\_  
VOLUNTEER'S PRINTED NAME

\_\_\_\_\_  
FMP

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
SPONSOR'S SSN

\_\_\_\_\_  
DOB

\_\_\_\_\_  
VOLUNTEER'S ADDRESS (street, city, state, zip)

\_\_\_\_\_  
ADVISING INVESTIGATOR'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
(PHONE NUMBER)

*(can only be signed by an investigator whose name is listed in the protocol)*

\_\_\_\_\_  
PRINTED NAME OF ADVISING INVESTIGATOR

\_\_\_\_\_  
WITNESS' SIGNATURE

\_\_\_\_\_  
DATE

(Must witness ALL signatures)

\_\_\_\_\_  
PRINTED NAME OF WITNESS

TITLE OF STUDY: A Randomized Trial of Musculoskeletal Pain Treatment in a Military Population

Protocol #:

Date Protocol Approved by WHMC/BAMC IRB:

Date(s) ICD Changes Approved by WHMC/BAMC IRB:

\_\_\_\_\_  
Subject's Stamp Plate

PRIVACY ACT OF 1974 APPLIES

DD FORM 2005 FILED IN MILITARY HEALTH RECORDS

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